Advanced GeoEnvironmental, Inc.



19 December 2005 AGE-NC Project No. 99-0645

Mr. Nicholas Bokides MEL BOKIDES PETROLEUM INC. P.O. Box 7747 Stockton, California 95267

Subject: Closure Summary Report

Former MEL BOKIDES PETROLEUM - Linden 8203 East Highway 26, Stockton, California

Dear Mr. Bokides:

Advanced GeoEnvironmental, Inc. (AGE) has prepared the enclosed Closure Summary Report for the property located at 8203 East Highway 26, Stockton, California. The report presents AGE's evaluation of the site data and a request for site closure. Copies of this report will be transmitted to Ms. Margaret Lagorio of the San Joaquin County Environmental Health Department (EHD) and to Mr. James Barton of the Central Valley Regional Water Quality Control Board (CVRWQCB).

The opportunity to provide this service is greatly appreciated. If you have any questions or require further information, please contact our office at (209) 467-1006.

Sincerely,

Advanced GeoEnvironmental, Inc.

Jo'l M. Chapman Staff Geologist

Enclosure

cc: Ms. Margaret Lagorio - EHD

Mr. James Barton - CVRWQCB

Advanced GeoEnvironmental, Inc.



19 December 2005 AGE-NC Project No. 99-0645

Ms. Margaret Lagorio San Joaquin County Environmental Health Department 304 East Weber Avenue, 3rd Floor Stockton, California 95202

Subject: Closure Summary Report

Former MEL BOKIDES PETROLEUM - Linden 8203 East Highway 26, Stockton, California

Dear Ms. Lagorio:

At the request of Mr. Nicholas Bokides of Mel Bokides Petroleum, Inc., *Advanced* GeoEnvironmental, Inc. has prepared the enclosed *Closure Summary Report* for the property located at 8203 East Highway 26, Stockton, California. The report provides justifications for a site closure request based on evaluation of site data.

If you have any questions or require further information, please contact our office at (209) 467-1006.

Sincerely,

Advanced GeoEnvironmental, Inc.

Jo²M. Chapman Staff Geologist

19 December 2005 AGE-NC Project No. 99-0645

PREPARED FOR:

Mr. Nicholas Bokides
MEL BOKIDES PETROLIUM

PREPARED BY:



Advanced GeoEnvironmental, Inc.

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Advanced GeoEnvironmental, Inc. 837 Shaw Road, Stockton, California

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1.0. INTRODUCTION

At the request of Mr. Nicholas Bokides of Mel Bokides Petroleum, Inc., *Advanced* GeoEnvironmental, Inc. (AGE) has prepared this *Closure Summary Report* for the property located at 8203 East Highway 26, Stockton, California (site). This report presents a summary of site assessment and corrective action activities to date and provides justification for a site closure request based on the site-specific data.

This report was prepared in accordance with guidelines established by the *Tri-Regional Board Staff Recommendations for Preliminary Investigations and Evaluation of Underground Storage Tank Sites* (Central Valley Regional Water Quality Control Board [CVRWQCB], 1990) and the California Water Resources Control Board's (CWRCB's) *California Underground Storage Tank Regulations* (CWRCB, 1992).

2.0. BACKGROUND

The site is located in a business/agricultural area of eastern Stockton, California, in San Joaquin County. The property was formerly utilized as a gasoline station and mini-mart. The site is located near the intersection of East Highway 26 and Alpine Road in an area of low topographic relief, at an elevation of approximately 48 feet above mean sea level (Stockton East Quadrangle, 7.5-Minute USGS Topographic Series, photo revised 1987). The location of the site is illustrated on Figure 1. Site structures, soil borings, and monitoring and extraction well locations are illustrated on Figure 2.

2.1. REGIONAL GEOLOGIC/HYDROGEOLOGIC SETTING

The property is situated within the Great Valley Geomorphic Province of California, a large, elongate, northwest trending, asymmetric structural trough. The Great Valley Province has been filled with thick sequences of sediment ranging in age from Jurassic to Recent, creating a nearly flatlying alluvial plain that extends from the Tehachapi Mountains in the south to the Klamath Mountains in the north. The western and eastern boundaries of this province are comprised of the California Coast Range and the Sierra Nevada, respectively. Rocks composing the basement complex of the province have not been completely defined but are believed to be metamorphic and igneous in origin. The northern and southern portions of the Great Valley Province have been designated the Sacramento and San Joaquin Valleys, respectively.

The Modesto, Riverbank, and Turlock Lake Formations and overlying Recent alluvium are the principal source of domestic ground water in the 13,500 square-mile San Joaquin Valley Ground Water Basin (Basin 5-22). This basin is drained primarily by the San Joaquin River.

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The closest surface water feature to the site is the Calaveras River (Diverting Canal) which is located approximately 10,500 feet southwest of the site. Water from the Calaveras River drains into the San Joaquin River Deep Water Channel and is primarily used for commercial, agricultural, and recreational boating. Ground water at the site is currently encountered at a depth of approximately 90 feet below surface grade (bsg); flow direction typically fluctuates from the northeast to southwest. Layers of sandy material occur at depths of 15 feet to 30 feet bsg and 75 feet to 80 feet or 80 feet to 85 feet bsg. Ground water over the majority of the site occurs in a stratigraphic layer generally consisting of clayey silt, sandy silt, and silt. Ground water elevation data from November 2001 to July 2005 is presented in Table 1.

2.2. UST REMOVAL AND OVER-EXCAVATION

On 07 May 1999, three underground storage tanks (USTs), associated piping, and a dispenser island were removed from the site by Semco of Modesto. Six soil samples were collected beneath the USTs, two soil samples were collected beneath the dispenser area, and four laboratory composited soil samples were collected from the excavated soil.

Approximately 150 cubic yards of soil were excavated during the removal of the USTs; subsequent to the soil sampling activities, the soil was placed back into the excavation.

Laboratory analysis of the soil samples detected total petroleum hydrocarbons quantified as gasoline (TPH-g) at concentrations as high as 17,000 milligrams per kilogram (mg/kg) beneath the northern UST (Tank#1); benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected at concentrations as high as 3,000 mg/kg. Methyl tertiary-butyl ether (MTBE) and/or tertiary-butyl alcohol (TBA) were detected in soil samples collected from the former UST excavation and stockpiled soil at the site at concentrations as high as 160 mg/kg MTBE. The presence of high concentrations of MTBE in the soil samples indicated that an unassessed mass of MTBE remained at the site. Analytical results of soil samples are summarized in Table 2.

2.3. INTERIM SOIL REMEDIATION

On 21 March 2000, AGE personnel excavated 195 metric tons of impacted soil from the former tank pit utilizing an excavator outfitted with a 2.45 cubic yard bucket. Following the removal of the original soil backfill material, the excavation was enlarged and deepened to an approximate depth of 22 feet bsg, and soil samples were collected from the floor (F-1) and walls (WW, EW, NW, and SW) of the excavation, as well as the soil stockpiles, for laboratory analysis. On 22 March 2000, the impacted soil was transported from the site and disposed of at Forward Landfill.

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TPH-g was detected in excavation soil samples F-1, WW, EW, and NW at concentrations of 6.0 mg/kg, 23,000 mg/kg, 29 mg/kg, and 32 mg/kg, respectively. BTEX compounds were detected in all excavation samples, except SW, at maximum concentrations in sample WW of 56 mg/kg benzene, 1,700 mg/kg toluene, 470 mg/kg ethylbenzene, and 2,900 mg/kg xylenes. MTBE was detected in all excavation samples at concentrations ranging from 0.028 mg/kg (SW) to 140 mg/kg (WW). Tertiary-amyl methyl ether (TAME) was detected only in sample WW at 9.2 mg/kg; TBA was detected in samples F-1 and NW at 6.100 mg/kg and 0.10 mg/kg, respectively.

The composited stockpile soil samples contained TPH-g at concentrations ranging from 1,900 mg/kg to 2,100 mg/kg. BTEX compounds ranged from below laboratory detection limits (benzene in sample SPA-D) to 280 mg/kg (xylenes in sample SPH-L). MTBE, TAME, and TBA were detected at concentrations as high as 3.0 mg/kg, 0.24 mg/kg, and 3.5 mg/kg, respectively. Analytical results of soil samples are summarized in Table 2.

AGE calculated that approximately 126 gallons of gasoline were removed in the soil excavated during the interim remediation activities (Appendix A). The highest concentrations of petroleum hydrocarbon compounds left in place were detected in the sample collected from the western wall of the former excavation. Lower concentrations of TPH-g were also detected in the floor sample and samples collected from the north and west sidewalls. Fuel oxygenates, including MTBE, TAME, and TBA, were detected in all samples.

2.4. PREVIOUS SITE ASSESSMENTS

On 15 through 17 October 2001, six soil borings (B1 through B6) were advanced at the site by AGE; three soil borings, B1 through B3, were established as ground water monitoring wells MW-1 through MW-3, respectively. Soil in the area of boring B1 (MW-1) and borings B4 and B5 was found to contain high concentrations of petroleum hydrocarbons at depths of 15 feet bsg, with reduced concentrations encountered at depths to 70 feet bsg. Ground water monitoring data from the initial ground water monitoring event on 02 November 2001 indicated that ground water was flowing toward the northeast, and was locally impacted by MTBE. Analytical results of soil samples are summarized in Table 2; analytical results of quarterly monitoring event ground water samples collected between November 2001 and July 2005 are summarized in Table 3.

On 27 September 2002, monitoring well MW-1 was destroyed by drilling out the entire boring length and backfilling with neat cement and bentonite in the upper 15 feet of the excavation. Additionally, the domestic on-site well was destroyed by percussion explosion and backfilled with a sand and cement mix.

On 09 through 11 September 2003, a total of seven soil borings were advanced at the site: boring B6' was advanced north of the excavation area at a 20 degree angle, to an extent of 80 feet; B7 was

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advanced southeast of well MW-2 to 70 feet bsg; boring MW-1R was installed east of the former UST area to 100 feet bsg; vapor well VW1B was advanced under the building at a 20 degree angle to an extent of 40 feet, VW1A was installed east of the former UST area to 70 feet bsg; VW2 was installed east of the former UST area to 40 feet bsg; and VW3 was installed south of well MW-3 to 60 feet bsg. Soil samples were collected at five foot intervals, generally beginning at 10 feet bsg, or where native soil was encountered below backfill. Monitoring and vapor extraction wells were completed within the following intervals: MW-1R from 80 feet to 100 feet bsg; VW1B from 15 feet to 40 feet bsg; VW1A from 40 feet to 70 feet bsg; VW2 from 15 feet to 40 feet bsg; and VW3 from 20 feet to 50 feet bsg.

A total of 28 soil samples were analyzed. Samples from B6' had concentrations of BTEX compounds and MTBE above laboratory reporting limits. MTBE ranged from 0.010 mg/kg to 0.63 mg/kg. BTEX compounds were detected at maximum concentrations of 0.020 mg/kg benzene, 0.060 mg/kg toluene, 0.030 mg/kg ethylbenzene, and 0.070 mg/kg xylenes. The sample results from B7 showed only one contaminated sample, collected at 30 feet bsg, with 0.49 mg/kg MTBE. At 40 feet bsg in MW-1R, 1.2 mg/kg TPH-g was detected; MTBE was detected at concentrations of 0.43 mg/kg and 1.2 mg/kg at 30 feet and 40 feet, respectively; TAME was detected at 30 feet and 40 feet at concentrations of 0.040 mg/kg and 0.030 mg/kg, respectively.

Results for VW1A showed TPH-g and TAME at detected 40 feet bsg at concentrations of 4.6 mg/kg and 0.010 mg/kg, respectively. MTBE was detected from 40 feet to 60 feet bsg at concentrations ranging from 0.030 mg/kg to 4.2 mg/kg. Soil from VW3 had detections of MTBE at 30 feet and 40 feet bsg at concentrations of 0.020 mg/kg and 0.060 mg/kg, respectively. Analytical results of soil samples are summarized in Table 2.

2.5. SOIL PROFILE

Based on soil data collected from soil borings B1 through B7, MW-1 through MW-3, VW1 through VW3, and the UST excavation, the subsurface soil generally consists of clayey silt, silty sand, and silt from surface grade to approximately 17 feet bsg. An approximately 10-foot layer of silty sand, poorly graded sand, and gravel was encountered from 17 feet to 32 feet bsg, with clayey silt, silty sand, and silt, interspersed with discontinuous lenses of sandy material, extending to 75 feet to 80 feet bsg. A layer of silty sand and gravel was identified between 75 feet and 80 feet bsg on the south end of the site and between 80 feet and 85 feet on the north end. Clayey silt, silty sand, and silt, interspersed with discontinuous lenses of sandy material, was encountered to the total depth of the borings.

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2.6. SVE REMEDIATION FEASIBILITY PROCEDURES

Two separate soil vapor extraction pilot tests were conducted on 18 September and 06 October 2003. On 18 September 2003, the upper sand layer was tested using vapor well VW1B, screened from 15 feet to 40 feet bsg, as the extraction well. On 06 October 2003, a second pilot test was conducted on the fine-grained, deeper-impacted areas closest to ground water at the site using vapor well VW1A, screened from 40 feet to 70 feet bsg as the extraction well. The pilot tests were initiated at 0800 and continued for 8 hours. A total of four soil vapor samples were collected during each pilot test.

Analytical results of soil vapor samples were generally highest in the second sample collected on 18 September. Extraction well VW1B results indicated: TPH-g was detected in all the soil vapor samples at concentrations ranging from11,000 μ g/l to 14,000 μ g/l; BTEX was detected in every sample at concentrations as high as 54 μ g/l benzene, 1,400 μ g/l toluene, 160 μ g/l ethylbenzene, 990 μ g/l xylenes; MTBE was detected in all samples at concentrations ranging from 730 μ g/l to 860 μ g/l. Toluene and total xylenes were detected in one sample collected from VW1A on 06 October 2003 at a concentration of 0.39 μ g/l and 0.29 μ g/l, respectively.

The shallow test results indicated that the flow rate was initially measured at 42 standard cubic feet per minute (cfm) and the maximum observed was 75 cfm. Organic vapor (OV) readings ranged from 923 parts per million (ppm) to 1,100 ppm. Induced vacuum measured at extraction well VW1B ranged from 20 to 32 inches of water. On 06 October 2003, the lower screened vapor extraction test results had measured flow rates between 25 cfm and 31 cfm, a much lower flow than observed in VW1B. OV readings ranged from 1.2 ppm to 2.5 ppm, which was consistent across the pilot test. Induced vacuum measured at the extraction well (VW1A) was always greater than 100 iow.

During the shallow soil vapor extraction pilot test (18 September) the greatest induced vacuum was measured in the observation point nearest the extraction well, at 0.60 inches of water in wells VW2 and VW3. The lowest vacuum was measured in MW-3, approximately 30 feet west of the extraction point and screened much lower in the stratigraphy at the site; however, sufficient induced vacuum was observed in the monitoring wells to demonstrate that a vertical connection may exist across the vertically separated layers at the site.

During the deeper soil vapor extraction pilot test (06 October 2003), the greatest induced vacuum was measured in the observation point nearest the extraction well, at 0.45 inches of water in well MW-1R. The lowest vacuum was measured in VW2 and VW1B, approximately 20 feet west of the extraction point and screened above the lower stratigraphy at the site. Again, sufficient induced vacuum was observed in the monitoring wells and also in the upper soil vapor extraction wells to demonstrate that a vertical connection may exist across the vertically separated layers at the site.

AGE plotted on a logarithmic scale the maximum vacuum measured at the observation points during

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the pilot test versus the distance from the extraction well. The effective radius of influence was determined by drawing a best-fit line though these data points to correlate distance to vacuum data. At a vacuum potential of 0.10 inches of water, the radius of influence is approximately 30 feet for the lower screened well (VW1A) and radius of influence is approximately 40 feet for the upper screened well (VW1B); at an induced vacuum potential of 1.0 inches of water, the radius of influence is 20 feet for well VW1A and approximately 25 feet for well VW1B. Furthermore, at a vacuum potential of 10.0 inches of water, the radius of influence is less than 10 feet. Based upon an effective vacuum potential of 0.1 inches of water, the calculated effective radius of influence at the site will be 30 feet up to almost 40 feet for the upper screened vapor well. The majority of the residual impacted soil would be collected within the 40-foot radius of influence.

3.0. SOIL VAPOR EXTRACTION

Well VW1B had been piped directly to the soil vapor extraction (SVE) unit located within a fenced enclosure on the north side of the site (Figure 2) using 2-inch diameter Schedule 40 polyvinylchloride (PVC) piping. In-line, the SVE system consists of a 55-gallon moisture knockout vessel for moisture separation and to prevent water collection within the treatment media, three 300-pound (lb) carbon canisters, then a Fuji 5-horsepower, regenerative vacuum blower capable of drawing a maximum 110 cfm of vapor, and finally two 1,500-lb carbon vessels to adsorb hydrocarbon vapor from the subsurface. The SVE unit was operated in accordance with San Joaquin Unified Air Pollution Control District (APCD) permit 5984-1; the permit was canceled in July 2005.

The SVE unit was observed or maintained weekly and monitored monthly. During each monitoring event, the flow rate of extracted soil-vapor (influent) was measured using a totalizing-flow Blue White roto-meter. Vacuum potential was measured at the 2-inch influent line by the Magnehelic vacuum gauge. In addition, the organic vapor concentrations in the influent stream (before entering the blower) and the effluent stream (after exiting the carbon unit) were measured using the organic vapor meter equipped with a photo-ionization detector (PID: Thermo Environmental 580b; 10.0 eV; calibrated to isobutylene). A Magnehelic vacuum gauge was temporarily attached to the inlet of the blower to measure vacuum pressure exerted on the extraction well, and a cumulative flow meter was utilized downstream of the carbon canisters to monitor air flow. Sampling ports were installed upstream of the knockout vessel and downstream of the 1,500-lb carbon vessels to recover influent and effluent SVE air flow samples used to monitor the efficiency of hydrocarbon removal; in addition, the influent and effluent streams were monitored routinely for the presence of organic vapor using a PID. Influent vapor samples were collected from within a vacuum chamber directly into Tedlar vapor bags; the effluent samples were collected directly out of the effluent stream. Field measurements were recorded at regular intervals and are summarized in Table 4; analytical results of SVE vapor samples are summarized in Table 5. The SVE system was operated between October

2004 and July 2005, at which time the operation of the system was terminated due to lack of influent

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contamination.

AGE calculated that approximately 1,204 lbs, or 192 gallons, of gasoline were extracted by the SVE system since start-up on 05 October 2004. A chart illustrating the contaminant concentration trends of influent soil vapor samples collected between October 2004 and July 2005 is provided in Appendix B.

4.0. PETROLEUM HYDROCARBON DISTRIBUTION IN SOIL

The majority of petroleum hydrocarbon-impacted soil appeared to be limited to the west and, to a lesser extent, the north ends of the former UST area (Figure 2). The highest petroleum hydrocarbon concentrations in soil, namely TPH-g, were detected in samples T1-N-15 (17,000 mg/kg) and WW (23,000 mg/kg), collected in May 1999 and March 2000, respectively (Table 2).

The concentrations of petroleum hydrocarbons in soil vapor samples extracted from well VW1B, installed in the area of greatest adsorbed petroleum hydrocarbon contamination, have declined below laboratory detection limits between initiation of SVE remediation in October 2004 and the present.

5.0. PETROLEUM HYDROCARBON IMPACT TO GROUNDWATER

Historically, low concentrations of petroleum hydrocarbon constituents were detected sporadically in monitoring well MW-1 before its destruction in September 2002. MTBE was detected in MW-1R during its initial ground water monitoring in October 2003 at a concentration of 120 μ g/l; TPH-g was detected in well MW-2 during its second ground water monitoring in April 2002 at a concentration of 130 μ g/l. Monitoring well MW-3 has remained uncontaminated.

The concentrations of petroleum hydrocarbon contaminants in wells MW-1R and MW-2 have declined below detection limits between the initiation of ground water monitoring in November 2001 or October 2003, respectively, and the present (Table 3).

6.0. SUMMARY AND CONCLUSIONS

Based upon a review of site assessment activities to date, AGE concludes:

• The majority of petroleum hydrocarbon-impacted soil appeared to be limited to the west end and, to a lesser extent, the north end of the former UST area. The highest petroleum hydrocarbon concentrations in soil, namely TPH-g, were detected in samples T1-N-15 and WW, collected in May 1999 and March 2000, respectively.

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- Historically, low concentrations of petroleum hydrocarbon constituents were detected sporadically in monitoring well MW-1 before its destruction in September 2002. MTBE was detected in MW-1R during its initial ground water monitoring in October 2003 at a concentration of 120 µg/l; TPH-g was detected in well MW-2 during its second ground water monitoring in April 2002 at a concentration of 130 µg/l. Monitoring well MW-3 has remained uncontaminated.
- The concentrations of petroleum hydrocarbon contaminants in wells MW-1, MW-1R, and MW-2 have declined below detection limits between the initiation of ground water monitoring in November 2001 or October 2003 (MW-1R) and the present.
- The concentration of petroleum hydrocarbons in soil vapor samples extracted from well VW1B, installed in the area of greatest adsorbed petroleum hydrocarbon contamination, has declined below laboratory detection limits between initiation of SVE remediation in October 2004 and the present.

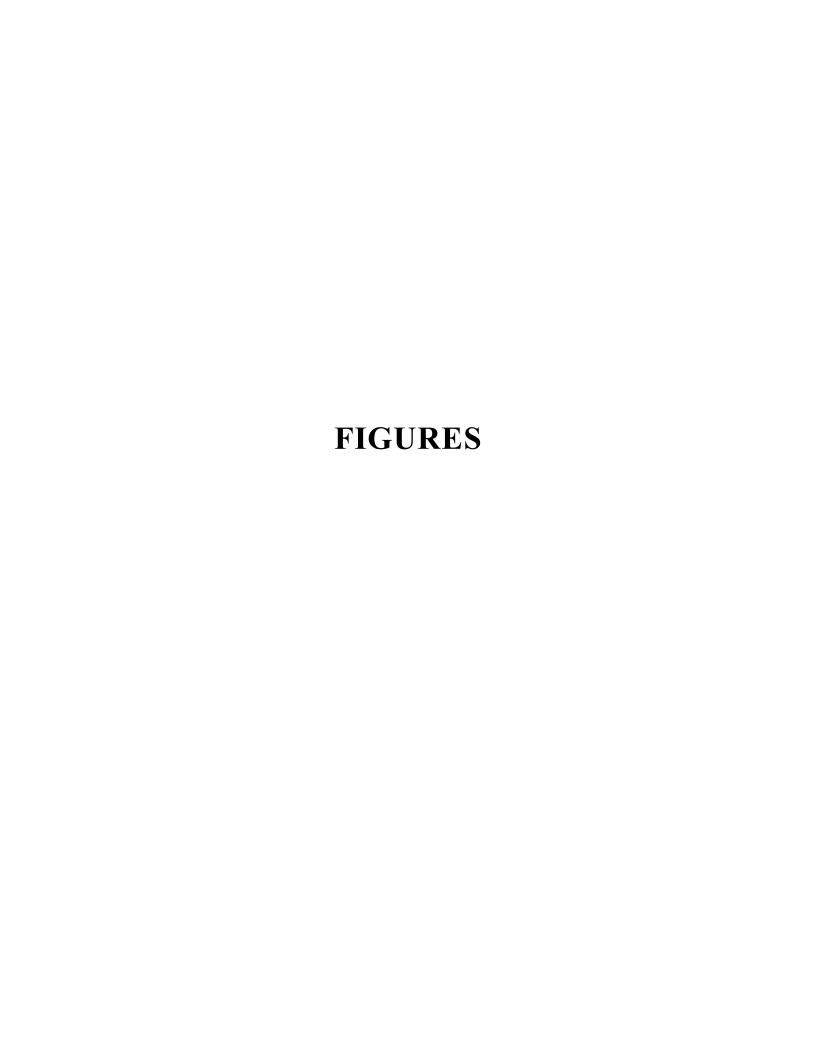
7.0. RECOMMENDATIONS

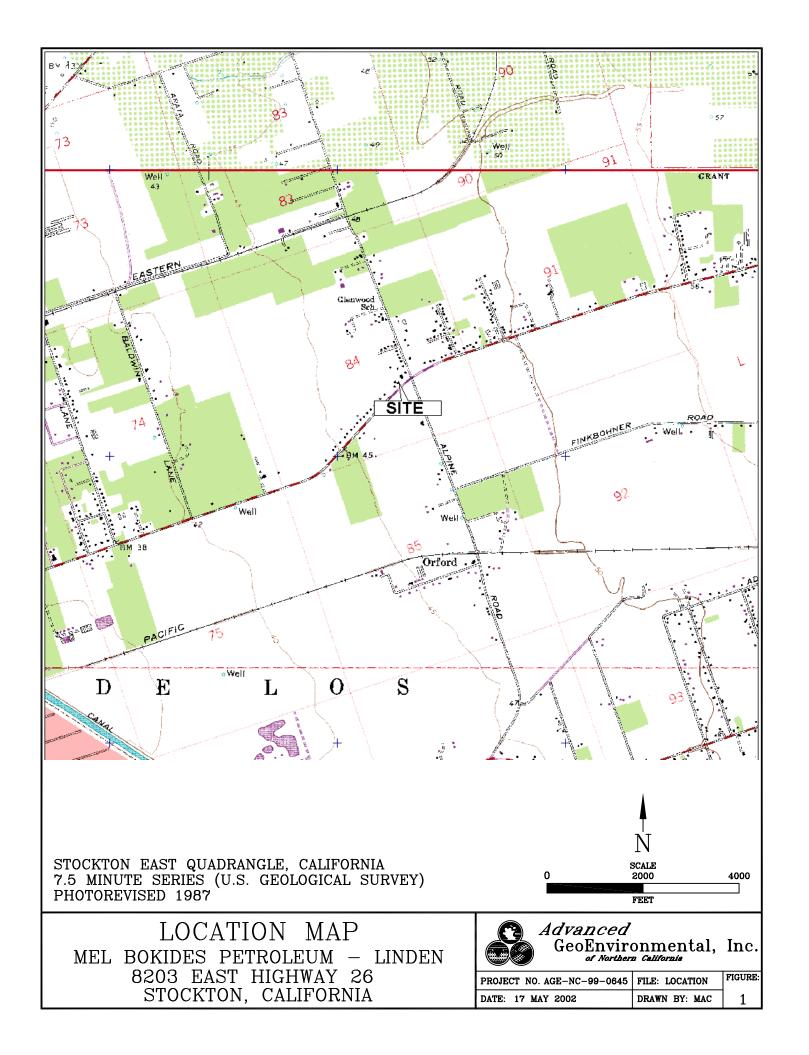
Based on the results of this investigation, AGE recommends:

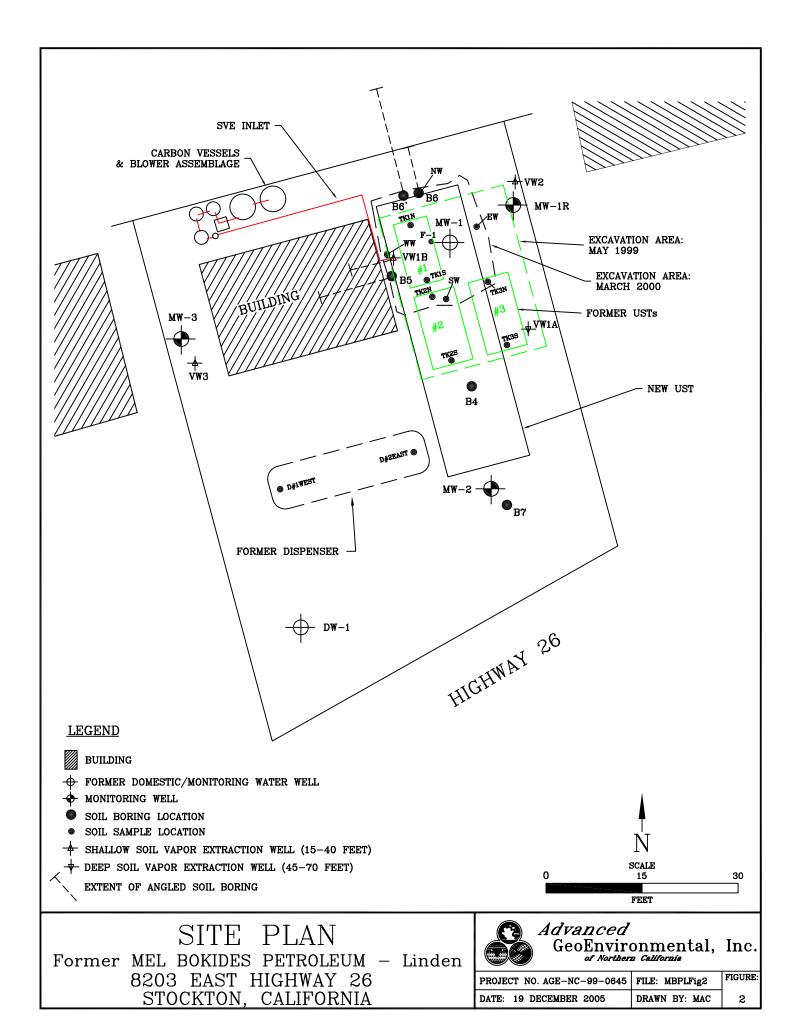
- Low-risk site closure as defined in Appendix A of the *Tri-Regional Recommendations*: the potential source of ground water contamination, petroleum hydrocarbon contamination in soil, has been remediated below laboratory detection limits; the concentrations of petroleum hydrocarbon contaminants in wells MW-1, MW-1R, and MW-2 have declined below detection limits between the initiation of ground water monitoring in November 2001 or October 2003 (MW-1R) and the present.
- Destroy monitoring wells in accordance with applicable regulations as part of the site closure preparations.

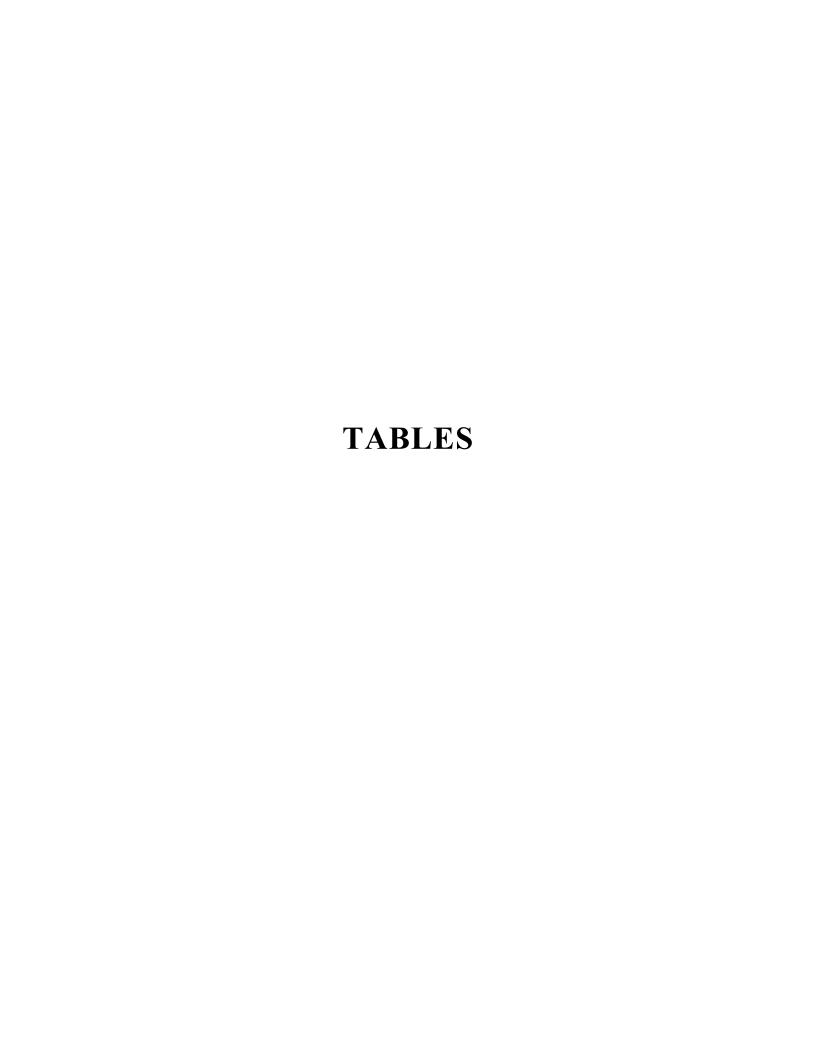
8.0. LIMITATIONS

Our professional services were performed using that degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar localities. The findings were based mainly upon analytical results provided by an independent laboratory. Evaluations of the geologic/hydrogeologic conditions at the site for the purpose of this investigation are made from a limited number of available data points (i.e. grab ground water samples and soil samples) and subsurface conditions may vary away from these data points. No other warranty, expressed or implied, is made as to the professional interpretations, opinions and recommendations contained in this report.









GROUND WATER ELEVATION DATA Former MEL BOKIDES PETROLEUM - Linden 8203 East highway 26, Stockton, California (feet)

Well Number (screen interval)	Casing Elevation	Date	Depth to Ground Water	Ground Water Elevation
MW-1 (80-100) destroyed	45.28	11/02/01 04/12/02 07/12/02	90.88 81.62 91.03	-45.60 -36.34 -45.75
MW-1R (80-100)	45.56	10/06/03 03/11/04 06/30/04 10/20/04 01/25/05 04/12/05 07/11/05	95.34 86.09 94.00 97.67 91.64 87.44 91.07	-49.78 -40.53 -48.44 -52.11 -46.08 -41.88 -45.51
	45.29	11/02/01 04/12/02 07/12/02 04/01/03	90.86 81.61 91.03 84.93	-45.57 -36.32 -45.72 -39.64
MW-2 (80-100)	45.30	10/06/03 03/11/04 06/30/04 10/20/04 01/25/05 04/12/05 07/11/05	95.19 85.84 93.84 97.45 91.44 87.21 90.88	-49.90 -40.55 -48.54 -52.15 -46.14 -41.91 -45.58
	45.23	11/02/01 04/12/02 07/12/02 04/01/03	90.74 81.49 90.90 86.72	-45.51 -36.26 -45.67 -41.49
MW-3 (80-100)	45.23	10/06/03 03/11/04 06/30/04 10/20/04 10/29/04 01/25/05 04/12/05 07/11/05	95.09 85.78 93.80 97.37 96.77 91.29 87.14 90.74	-49.86 -40.55 -48.57 -52.14 -51.54 -46.06 -41.91 -45.51
Domestic Well destroyed	45.73	11/02/01	91.00	-45.27

ANALYTICAL RESULTS OF SOIL SAMPLES Former MEL BOKIDES PETROLEUM - Linden 8203 East highway 26, Stockton, California (mg/kg)

G 1		801	5M							8260						
Sample I.D.	Date	TPH-g	TPH-d	MTBE	DIPE	ETBE	TAME	TBA	EDB	1,2-DCA	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Methanol	Ethanol
D#1 West	05/07/99	<1.0	<1.0	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	-	-	< 0.005	0.082	< 0.005	< 0.005	-	< 0.01
D#2 East	05/07/99	-	9.2	-	1	1	-	1	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
SPA-East, West	05/07/99	<1.0	21	0.12	<0.01	< 0.01	<0.01	0.33	-	-	< 0.005	0.051	0.12	1.3	-	< 0.01
SPB-East, West	05/07/99	<1.0	<1.0	<0.01	<0.01	<0.01	<0.01	<0.1	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	<0.01
SPC-East, West	05/07/99	<1.0	8.0	0.033	<0.01	<0.01	<0.01	<0.1	-	-	< 0.005	< 0.005	< 0.005	0.0074	-	<0.01
SPD-East, West	05/07/99	<1.0	5.0	0.018	<0.01	<0.01	<0.01	<0.1	-	-	< 0.005	< 0.005	< 0.005	0.024	-	<0.01
TK3-S 15	05/07/99	-	10	-	-	-	-	1	-1	-	< 0.005	0.0087	< 0.005	0.012	-	-
TK3-N 15	05/07/99	-	1.6	-	-	-	-	-	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
TK2-S 15	05/07/99	<1.0	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	ı	-	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.01
TK2-N 15	05/07/99	<1.0	-	0.74	< 0.01	< 0.01	< 0.01	2.0	-	-	0.0067	< 0.005	< 0.005	0.023	-	< 0.01
TK1-S 15	05/07/99	9,900	-	160	<2.0	<2.0	<2.0	<20	-	-	9.2	240	96	560	-	<2.0
TK1-N 15	05/07/99	17,000	-	31	< 0.01	< 0.01	<5.0	< 0.5	-	-	4.3	800	390	3,000	-	< 0.01
F-1	03/21/00	6.0	0.042	19	< 0.5	<0.5	< 0.5	6.1	-	-	0.34	0.048	0.47	25	-	-
ww	03/21/00	23,000	56	140	< 5.0	<5.0	9.2	<25	-	-	1,700	470	2,900	350	-	-
EW	03/21/00	29	0.16	15	< 0.5	<0.5	< 0.5	<2.5	-	-	2.8	0.51	4.1	20	-	-

Advanced GeoEnvironmental, Inc.

ANALYTICAL RESULTS OF SOIL SAMPLES Former MEL BOKIDES PETROLEUM - Linden 8203 East highway 26, Stockton, California (mg/kg)

G 1		801	5M							8260						
Sample I.D.	Date	ТРН-д	TPH-d	MTBE	DIPE	ETBE	TAME	TBA	EDB	1,2-DCA	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Methanol	Ethanol
SW	03/21/00	<1.0	< 0.005	0.28	< 0.005	< 0.005	< 0.005	< 0.025	-	-	< 0.005	< 0.005	< 0.005	0.075	-	-
NW	03/21/00	32	<5.0	0.91	< 0.005	< 0.005	< 0.005	0.1	-	-	0.51	0.31	2.7	<140	-	-
SPA-D	03/21/00	1,900	< 0.20	1.3	< 0.1	< 0.1	< 0.1	3.2	1	-	34	24	270	5.1	-	-
SPE-G	03/21/00	2,100	0.70	2.8	< 0.1	< 0.1	0.17	3.4	1	-	60	33	260	6.8	-	-
SPH-L	03/21/00	2,000	0.61	3.0	< 0.1	< 0.1	0.24	3.5	1	-	64	34	280	3.9	-	-
B1-20	10/15/01	1.4	3.9	0.5	< 0.01	< 0.01	< 0.01	4.5	< 0.01	< 0.01	< 0.5	0.009	< 0.5	0.063	<5.0	< 0.5
B1-30	10/15/01	5.8	7.7	16	< 0.5	< 0.5	< 0.5	<2.5	< 0.5	< 0.5	0.048	0.009	0.022	0.25	<250	<25
B1-40	10/15/01	12	12	16	< 0.25	< 0.25	< 0.25	<1.25	< 0.25	< 0.25	0.038	0.12	0.057	0.56	<250	<25
B1-50	10/15/01	< 50	1.1	4.3	< 0.2	< 0.2	< 0.2	<1.0	< 0.2	< 0.2	0.036	0.016	<0.5	0.021	<100	<10
B1-60	10/15/01	<50	-	2.0	< 0.05	< 0.05	< 0.05	< 0.25	< 0.05	< 0.05	0.011	< 0.5	< 0.5	< 0.5	<25	<2.5
B1-70	10/15/01	<50	1	0.046	< 0.05	< 0.05	< 0.05	< 0.025	< 0.05	< 0.05	0.13	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B1-80	10/15/01	<50	-	< 0.005	< 0.05	< 0.05	< 0.05	< 0.025	< 0.05	< 0.05	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B1-90	10/15/01	<50	<1.0	< 0.005	< 0.05	< 0.05	< 0.05	< 0.025	< 0.05	< 0.05	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B1-100	10/15/01	< 50	1.1	< 0.005	< 0.05	< 0.05	< 0.05	< 0.025	< 0.05	< 0.05	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B2-80	10/15/01	<50	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025	< 0.005	< 0.005	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B2-90	10/15/01	<50	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025	< 0.005	< 0.005	<0.5	<0.5	<0.5	< 0.5	<2.5	<0.25

ANALYTICAL RESULTS OF SOIL SAMPLES Former MEL BOKIDES PETROLEUM - Linden 8203 East highway 26, Stockton, California (mg/kg)

G 1		801	5M							8260						
Sample I.D.	Date	ТРН-д	TPH-d	MTBE	DIPE	ETBE	TAME	TBA	EDB	1,2-DCA	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Methanol	Ethanol
B2-100	10/15/01	<50	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025	< 0.005	< 0.005	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B3-70	10/16/01	<50	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025	< 0.005	< 0.005	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B3-80	10/16/01	<50	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025	< 0.005	< 0.005	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B3-90	10/16/01	<50	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025	< 0.005	< 0.005	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B3-100	10/16/01	< 50	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025	< 0.005	< 0.005	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B5-10	10/16/01	15,000	9,100	< 0.5	< 0.5	<0.5	< 0.5	<2.5	< 0.5	< 0.5	< 0.5	160	200	1,700	<250	<25
B5-15	10/16/01	21	7.9	2.0	< 0.05	< 0.05	0.16	4.7	< 0.05	< 0.05	0.076	2.4	0.63	3.9	<25	<25
B5-20	10/16/01	12	1.7	15	< 0.25	< 0.25	< 0.25	<1.25	< 0.25	< 0.25	0.046	0.71	0.086	0.62	<125	<12.5
B5-30	10/16/01	1.5	<1.0	18	< 0.25	< 0.25	< 0.25	<1.25	< 0.25	< 0.25	0.02	0.22	0.027	0.23	<125	<12.5
B5-40	10/16/01	1.5	<1.0	12	< 0.5	< 0.5	< 0.5	<1.25	< 0.5	< 0.5	0.086	0.19	0.02	0.21	<125	<125
B4-20	10/17/01	< 50	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025	< 0.005	< 0.005	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B4-30	10/17/01	<50	<1.0	1.2	< 0.1	< 0.1	< 0.1	< 0.5	< 0.1	< 0.1	0.012	0.059	0.013	0.099	<50	<5.0
B4-40	10/17/01	< 50	<1.0	6.5	< 0.1	< 0.1	< 0.1	<0.5	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	<50	<5.0
B4-50	10/17/01	<50	<1.0	0.033	< 0.005	< 0.005	< 0.005	< 0.025	< 0.005	< 0.005	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B6-20	10/17/01	<50	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025	< 0.005	< 0.005	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	< 0.25
B6-30	10/17/01	< 50	<1.0	4.9	< 0.25	< 0.25	< 0.25	<0.125	< 0.25	< 0.25	< 0.5	< 0.5	< 0.5	< 0.5	<12.5	<1.25

ANALYTICAL RESULTS OF SOIL SAMPLES Former MEL BOKIDES PETROLEUM - Linden 8203 East highway 26, Stockton, California (mg/kg)

G 1		801	5M							8260						
Sample I.D.	Date	TPH-g	TPH-d	MTBE	DIPE	ETBE	TAME	TBA	EDB	1,2-DCA	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Methanol	Ethanol
B6-40	10/17/01	<50	<1.0	17	< 0.5	< 0.5	<0.5	<2.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	<250	<25
B6'-50	09/09/03	<1.0	-	0.63	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
B6'-60	09/09/03	<1.0	-	0.010	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
B6'-70	09/09/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	1	-	0.010	0.060	< 0.005	0.070	-	-
B6'-80	09/11/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	1	-	0.020	0.050	0.030	0.060	-	-
B7-30	09/11/03	<1.0	-	0.49	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
B7-40	09/11/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
B7-50	09/11/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	ı	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
B7-60	09/11/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	ı	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
B7-70	09/11/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
MW1R-20	09/10/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
MW1R-30	09/10/03	<1.0	-	0.43	< 0.01	< 0.01	0.040	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
MW1R-40	09/10/03	1.2	-	1.2	< 0.01	< 0.01	0.030	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
MW1R-50	09/10/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
MW1R-60	09/10/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
MW1R-70	09/10/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-

ANALYTICAL RESULTS OF SOIL SAMPLES Former MEL BOKIDES PETROLEUM - Linden 8203 East highway 26, Stockton, California (mg/kg)

C1-		801	5M							8260						
Sample I.D.	Date	TPH-g	TPH-d	MTBE	DIPE	ETBE	TAME	TBA	EDB	1,2-DCA	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Methanol	Ethanol
MW1R-80	09/10/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
VW1A-40	09/10/03	4.6	-	4.2	< 0.01	< 0.01	0.010	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	1
VW1A-45	09/10/03	<1.0	-	0.14	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	1
VW1A-50	09/10/03	<1.0	-	0.080	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	1
VW1A-60	09/10/03	<1.0	-	0.030	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
VW1A-65	09/10/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
VW1A-70	09/10/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
VW3-10	09/11/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
VW3-20	09/11/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
VW3-30	09/11/03	<1.0	-	0.020	< 0.01	< 0.01	< 0.01	< 0.10	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
VW3-40	09/11/03	<1.0	-	0.060	< 0.01	< 0.01	< 0.01	<0.10	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
VW3-50	09/11/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	<0.10	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-
VW3-60	09/11/03	<1.0	-	< 0.005	< 0.01	< 0.01	< 0.01	< 0.10	1	-	< 0.005	< 0.005	< 0.005	< 0.005	-	-

Notes:

mg/kg: milligrams per kilogram DIPE: di-isopropyl ether 1,2-DCA: 1,2-dichloroethane -: not analyzed ETBE: ethyl tertiary-butyl ether

-: not analyzed ETBE: ethyl tertiary-butyl ether
TPH-g: total petroleum hydrocarbons quantified as gasoline TAME: tertiary-amyl methyl ether
TPH-d: total petroleum hydrocarbons quantified as diesel TBA: tertiary-butyl alcohol
MTBE: methyl tertiary-butyl ether
EDB: 1,2-dibromoethane

ANALYTICAL RESULTS OF GROUND WATER SAMPLES Former MEL BOKIDES PETROLEUM - Linden 8203 East highway 26, Stockton, California

 $(\mu g/l)$

Commla		801	5M	8020						1	8020/8260)					
Sample I.D.	Date	TPH-g	TPH-d	MTBE	MTBE	DIPE	ETBE	TAME	TBA	EDB	1,2-DCA	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Methanol	Ethanol
MW-1	11/02/01 04/12/02 07/12/02 Destroyed	<50 120 <50	<50 <50 55	5.9 <1.0 <0.5	4.7 <1.0 <0.5	<1.0 <1.0 <0.5	<1.0 <1.0 <0.5	<1.0 <1.0 <0.5	<5.0 <25 <5.0	<1.0 <0.5 <0.5	<1.0 <0.5 <0.5	<0.5 <0.5 <0.5	<0.5 <0.5 <0.5	<0.5 <0.5 <0.5	<0.5 <1.0 <0.5	<500 - <500 -	<50 - <50 -
MW-1R	10/06/03 03/11/04 06/30/04 10/20/04 01/25/05 04/12/05 07/11/05	<50 <50 <50 <50 <50 <50 <50	<50 <50 <50 <50 <50 <50 <50 <50		120 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<5.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<5.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<5.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<50 <10 <10 <10 <10 <10 <10	<5.0 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<5.0 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.6 <0.6 <0.6 <0.6 <0.6 <0.6	- - - - -	
MW-2	11/02/01 04/12/02 07/12/02 04/01/03 10/06/03 03/11/04 06/30/04 10/20/04 01/25/05 04/12/05 07/11/05	<50 130 <50 <50 <50 <50 <50 <50 <50 <50 <50 <5	<50 <50 <50 <50 <50 <50 <50 <50 <50 <50	<5.0 <1.0 <0.5 <1.0 - - - -	<1.0 <1.0 <0.5 <1.0 <0.5 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <0.5 <1.0 <0.5 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <0.5 <1.0 <0.5 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <0.5 <1.0 <0.5 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<5.0 <25 <5.0 <10 <5.0 <10 <10 <10 <10 <10	<1.0 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0	<1.0 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <1.0 <0.5 <1.0 <0.5 <1.0 <0.5 <0.6 <0.6 <0.6 <0.6 <0.6 <0.6 <0.6	<500 <500 <1,000 - - - - - -	<50 <50 <50

ANALYTICAL RESULTS OF GROUND WATER SAMPLES Former MEL BOKIDES PETROLEUM - Linden

8203 East highway 26, Stockton, California

 $(\mu g/l)$

C1-		801	5M	8020							8020/8260)					
Sample I.D.	Date	TPH-g	TPH-d	MTBE	MTBE	DIPE	ETBE	TAME	TBA	EDB	1,2-DCA	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Methanol	Ethanol
	11/02/01	<50	<50	<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	< 0.5	< 0.5	< 0.5	< 0.5	<500	<50
	04/12/02	< 50	< 50	<1.0	<1.0	<1.0	<1.0	<1.0	<25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1.0		
	07/12/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 500	< 50
	04/01/03	< 50	< 50	<1.0	<1.0	<1.0	<1.0	<1.0	<10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<1.0	<1,000	< 50
	10/06/03	< 50	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-
MW-3	03/11/04	< 50	< 50	-	<1.0	<1.0	<1.0	<1.0	<10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6	-	-
IVI VV -3	06/30/04	< 50	< 50	-	<1.0	<1.0	<1.0	<1.0	<10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6	-	-
	10/20/04	600	< 50	-	<1.0	<1.0	<1.0	<1.0	<10	< 0.5	< 0.5	5.3	17	9. 7	67	-	-
	10/29/04	< 50	< 50	-	<1.0	<1.0	<1.0	<1.0	<10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6	-	-
	01/25/05	< 50	< 50	-	<1.0	<1.0	<1.0	<1.0	<10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6	-	-
	04/12/05	< 50	< 50	-	<1.0	<1.0	<1.0	<1.0	<10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6	-	-
	07/11/05	< 50	< 50	-	<1.0	<1.0	<1.0	<1.0	<10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6	-	-

Notes:

 $\begin{array}{ll} \mu \text{g/l:} & \text{micrograms per liter} \\ \text{-:} & \text{not analyzed} \end{array}$

TPH-g: total petroleum hydrocarbons quantified as gasoline TPH-d: total petroleum hydrocarbons quantified as diesel

MTBE: methyl tertiary-butyl ether

DIPE: di-isopropyl ether
ETBE: ethyl tertiary-butyl ether
TAME: tertiary-amyl methyl ether
TBA: tertiary-butyl alcohol
EDB: 1,2-dibromoethane
1,2-DCA: 1,2-dichloroethane

SOIL VAPOR EXTRACTION DATA Former MEL BOKIDES PETROLEUM - Linden 8203 East Highway 26, Stockton, California

Date	Time	Hours	Flow (cfm)	Vacuum (inches of water)	Inlet (ppmv)	Outlet (ppmv)
10-05-04	1:30 pm	0	55	25	2020	0
10-13-04	12:30 pm	144	55	21	847	15
10-21-04	7:30 am	332	65	23	538	3.8
11-03-04	3:00 pm	647	50	18	-	13
11-17-04	1:00 pm	983	54	18	274	3
12-22-04	11:30 am	1823	70	26	838	4.1
01-21-05	12:00 pm	2543	65	32	135	11
02-16-05	3:30 pm	3167	65	29	247	88
03-08-05	7:30 am	3647	64	30	224	27
03-17-05	2:30 pm off	3863	63	23	66	74
03-23-05	3:00 pm on	3863	45	30	-	-
04-13-05	10:30 am	4367	85	44	101	0
05-04-05	1:30 pm	4871	68	15	34	1.4
05-17-05	11:30 am	5111	64	-	43	0
06-08-05	1:30 pm	5639	58	-	0	0
07-18-05	1:30 pm	6575	-	-	-	-

Notes: cfm: cubic feet per minute parts per million by volume ppmv: not monitored/analyzed

ANALYTICAL RESULTS OF SOIL VAPOR SAMPLES Former MEL BOKIDES PETROLEUM - Linden 8203 East Highway 26, Stockton, California $(\mu g/l)$

Sample I.D. Date	ТРН-д	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
Influent Pre-Carbon adsorption 10-05-04	12,000	160	15	450	40	300
Effluent Post-Carbon adsorption 10-05-04	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Influent Pre-Carbon adsorption 10-13-04	3,900	130	11	260	27	180
Effluent Post-Carbon adsorption 10-13-04	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Influent Pre-Carbon adsorption 10-21-04	1,300	340	8.0	87	28	220
Effluent Post-Carbon adsorption 10-21-04	110	<0.5	<0.5	2.9	5.0	40
Influent Pre-Carbon adsorption 11-03-04	2,000	77	<1.0	26	32	300
Effluent Post-Carbon adsorption 11-03-04	<25	22	<0.25	<0.25	<0.25	<0.25
Influent Pre-Carbon adsorption 11-17-04	500	76	<0.5	7.3	9.7	92
Effluent Post-Carbon adsorption 11-17-04	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Influent Pre-Carbon adsorption 12-22-04	650	12	<0.5	1.7	2.6	25
Effluent Post-Carbon adsorption 12-22-04	120	<0.5	<0.5	<0.5	<0.5	4.0

ANALYTICAL RESULTS OF SOIL VAPOR SAMPLES Former MEL BOKIDES PETROLEUM - Linden 8203 East Highway 26, Stockton, California $(\mu g/l)$

Sample I.D. Date	ТРН-д	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
Influent Pre-Carbon adsorption 01-21-05	450	35	<0.5	2.0	3.8	41
Effluent Post-Carbon adsorption 01-21-05	<50	<0.5	<0.5	1.4	<0.5	5.0
Influent Pre-Carbon adsorption 02-16-05	820	180	11	23	<0.5	<1.0
Effluent Post-Carbon adsorption 02-16-05	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Influent Pre-Carbon adsorption 03-08-05	650	7.6	<0.5	36	2.2	12
Effluent Post-Carbon adsorption 03-08-05	110	<0.5	<0.5	7.5	<0.5	5.2
Effluent Post-Carbon adsorption 03-23-05	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Influent Pre-Carbon adsorption 04-13-05	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Effluent Post-Carbon adsorption 04-13-05	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Influent Pre-Carbon adsorption 05-04-05	<50	5.1	<0.5	<0.5	<0.5	<1.0
Effluent Post-Carbon adsorption 05-04-05	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Influent Pre-Carbon adsorption 05-17-05	120	11	<0.5	<0.5	4.0	7.3

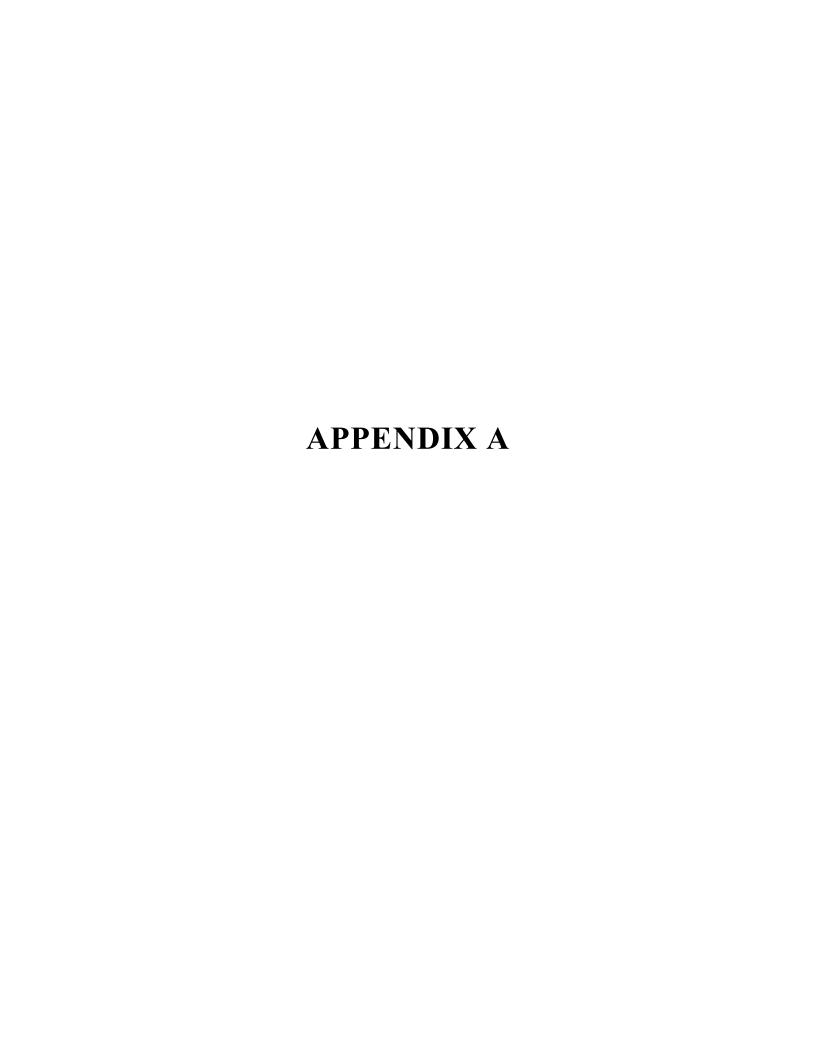
ANALYTICAL RESULTS OF SOIL VAPOR SAMPLES Former MEL BOKIDES PETROLEUM - Linden 8203 East Highway 26, Stockton, California $(\mu g/l)$

Sample I.D. Date	ТРН-g	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
Effluent Post-Carbon adsorption 05-17-05	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Influent Pre-Carbon adsorption 06-08-05	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Effluent Post-Carbon adsorption 06-08-05	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Influent Pre-Carbon adsorption 07-18-05	<50	<0.5	<0.5	<0.5	<0.5	<1.0
Effluent Post-Carbon adsorption 07-18-05	<50	<0.5	<0.5	<0.5	<0.5	<1.0

micrograms per liter

Notes: μg/l: TPH-g: total petroleum hydrocarbons quantified as gasoline

MTBE: methyl tertiary-butyl ether



Estimated Mass of Hydrocarbon-Impacted Soil Removed

Former MEL BOKIDES PETROLEUM - Linden 8203 East Highway 26, Stockton, California

On 21 March 2000, AGE personnel excavated 195 metric tons of impacted soil from the former tank pit utilizing an excavator outfitted with a 2.45 cubic yard bucket. Following the removal of the original soil backfill material, the excavation was enlarged and deepened to an approximate depth of 22 feet below surface grade (bsg), and soil samples were collected from the floor (F-1) and walls (WW, EW, NW, and SW) of the excavation, as well as the soil stockpiles, for laboratory analysis. Soil samples collected from the stockpiled soil were composited to obtain an overall average of hydrocarbons in the soil.

The impacted soil from the soil stockpile and UST excavation had the following concentrations: SPA-D: 1,900 milligrams per kilogram (mg/kg), SPE-G: 2,100 mg/kg, SPH-L: 2,000 mg/kg.

This mass was calculated from soil sample data and the weight of the soil stockpiled from the excavations. A total of 195 metic tons of impacted soil were disposed with an average concentration of 2,000 mg/kg of gasoline.

Calculation:

195 tons removed • 2,000 pounds/ton = 390,000 pounds soil

390,000 pounds soil • 0.454 kilograms/lbs = 177,060 kilograms soil

177,060 kilograms soil • 2,000 mg/kg gasoline = 354,120,000 milligrams gasoline

354,120,000 milligrams gasoline ÷ 1,000 milligram/grams = 354,120 grams gasoline

354,120 milligrams gasoline ÷ 1,000 grams/kilogram = 354.12 kilograms gasoline

Volume Conversion:

 $354,120 \text{ grams gasoline} \div 0.74 \text{ grams/cm}^3 = 478,541 \text{ cm}^3 \text{ gasoline}$

 $(478,541 \text{ cm}^3 \text{ gasoline} \div 3,785 \text{ cm}^3/\text{gallon}) = 126 \text{ gallons of gasoline removed}$

